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DEPARTMENT OF THE ARMY OFFICE OF THE ADJUTANT GENERAL WASHINGTON, D.C. 20310

IN REPLY REFER TO

DAAG-PAP-A (M) (9 Jun 72) DAFD-OTT 712180

22 June 1972

SUBJECT Operational Report - Lessons Learned, Headquarters, US Army Engineer Command, Vietnam, Period Ending 31 Oct 71 (U)

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2. The informat that lessons lead of future operat material.

1. The attached report is forwarded for review and evaluation in accordance with para 45, AR 325-15.

2. The information contained in this report is provided to insure that lessons learned during current operations are used to the benefit of future operations and may be adapted for use in developing training material.

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VERNE L. BOWERS

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AVCC-MO SUBJECT: 24 NOV 1971

Operational Report - Lessons Learned, USARENGRCCMDV, Period Ending 31 October 1971, RCS CSFOR-65 (R3)

Director of Materiel
Director of Military
Operations
Commanding Officer,
34th Engr Gp
Commanding Officer,
35th Engr Gp
Commanding Officer,
45th Engr Gp
Commanding Officer,
159th Engr Gp

John H. Casey, LTC, EN George L. Ealer, LTC, EN

John F. McElhenny, COL, EN

John S. Egbert, COL, EN

Walter O. Bachus, COL, EN

John W. Brennan, COL, EN

b. Administration:

(1) Strength:

| | | . cozoved |
|-------------------|------------|-----------|
| 31 May 1971 | AUTHORIZED | ASSIGNED |
| Officers | 998 | 1,025 |
| Warrant | 117 | 154 |
| Enlisted | 18,327 | 15,912 |
| 30 June 1971 | | |
| 0661.000 | 998 | 929 |
| Officers | 117 | 150 |
| Warrant | 18,327 | 16,023 |
| Enlisted | 103727 | |
| 31 July 1971 | | |
| | 965 | 822 |
| Officers | 176 | 143 |
| Warrant | 17,677 | 14,778 |
| Enlisted | 173071 | |
| 31 August 1971 | | |
| 0061 0000 | 848 | 786 |
| Officers | 150 | 140 |
| Warrant | 14,440 | 14,427 |
| Enlisted | 14 Japan | |
| 30 September 1971 | | |
| 0.001 | 848 | 802 |
| Officers | 160 | 146 |
| Warrant | 14,440 | 13,480 |
| Enlisted | 14 9440 | |

FUR UPPILIAL USE UNLI



DEPARTMENT OF THE ARMY HEADQUARTERS, U.S. ARMY ENGINEER COMMAND, VIETNAM APO SAN FRANCISCO 96491

AVCC-MO

24 NOV 1971

SUBJECT: Operational Report - Lessons Learned, USARENGRCOMDV Period Ending 31 October 1971, RCS CSFOR-65 (R3)

THRU: CG, USARV, ATTN: AVHDO-DO

CG, USARPAC, ATTN: GPOP-DT

TO: HQDA (DAFD-ZA), Washington, D.C. 20310

1. Operations: Significant Activities

a. Command:

- (1) General: The United States Army Engineer Command, Vietnam (USARENGRCOMDV) provides command and control of all non-divisional engineer activities in USARV. USARENGRCOMDV field command units are organized as follows: The 34th Engineer Group (Binh Thuy), the 35th Engineer Group (Cam Ranh Bay), the 45th Engineer Group (Da Nang) and the 159th Engineer Group (Long Binh). During the reporting period the majority of USARENGRCOMDV's effort was expended in two areas; engineer operational support and lines of communications (LOC) construction. Inclosures 1 and 2 show the organization and location of units within USARENGRCOMDV.
- (2) Mission: Command all non-divisional Army Engineer units and Engineer Districts in Vietnam. Advise DCG, USARV on all engineer matters. Provide engineer combat and operational support to US and FWMAF. Manage and execute the USARV facilities engineering program. Conduct a Vietnamization program. Redeploy engineer units from Vietnam as directed.
 - (3) Commanders and Principal Staff:

Commanding General
Deputy Commanding General
Chief of Staff
Executive Officer
Command Sergeant Major
Director of Administration
Director of Construction
Director of Facilities
Engineering

Robert P. Young, MG, USA
James A. Johnson, BG, USA
Alfred L. Griebling, COL, EN
Clarence W. Wise, LTC, EN
Hal R. Avery, CSM, USA
James R. Perry, LTC, AGC
Robert W. McBride, COL, EN
Virgil S. Adkins Jr., CCL, EN

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Operational Report - Lessons Learned, USARENGRCOMDV, Period Ending 31 October 1971, RCS CSFOR-65 (R3) SUBJECT:

| Director of Materiel | John H. Casey, LTC, EN |
|--------------------------------------|----------------------------|
| Director of Military Operations | George L. Ealer, LTC, EN |
| Commanding Officer, 34th Engr Gp | John F. McElhenny, COL, EN |
| Commanding Officer, 35th Engr Gp | John S. Egbert, COL, EN |
| Commanding Officer, 45th Engr Gp | Walter O. Bachus, COL, EN |
| Commanding Officer, 159th Engr Gp | John W. Brennan, COL, EN |

b. Administration:

(1) Strength:

| 31 May 1971 | AUTHORIZED | ASSIGNED |
|---------------------------------|-------------------------------|-------------------------------|
| Officers Warrant Enlisted | 998 117 18,327 | 1,025 154 15,912 |
| 30 June 1971 | | |
| Officers Warrant Enlisted | 998 117 18,327 | 929 150 16,023 |
| 31 July 1971 | | |
| Officers Warrant Enlisted | 965 176 17 , 677 | 822 143 14,778 |
| 31 August 1971 | | |
| Officers Warrant Enlisted | 848 160 14,440 | 786 140 14,427 |
| 30 September 1971 | | |
| Officer° Warrant Enlisted | 848 160 14,440 | 802 146 13 , 480 |
| | | |

AVCC-HO

SUBJECT: Operational Report - Lessons Learned, USARENGRCCMDV, Period Ending 31 October 1971, RCS CSFCR-65 (R3)

| 31 October 1971 | AUTHORIZED | ASSIGNED |
|-----------------|------------|----------|
| Officers | 802 | 753 |
| Warrant | 152 | 143 |
| Enlisted | 13,582 | 12,148 |

(2) The following awards were approved during the period:

- (3) Discipline: The following statistics are submitted for the reporting period:
 - (a) General Courts-Martial: 18
 - (b) BCD Special Courts-Martial: 12
 - (c) Special Courts-Martial: 188
 - (d) Article 15's: 4,051
 - c. Construction Operations:
 - (1) Distribution of Production Effort:
- (a) The productive effort expended by the Engineer Command during the reporting period is as follows:

| | Man-Hours | | |
|------------------------------------------|-------------------------------------|--|--|
| Combat/Operational Support | 3,009,000 - 41.3% | | |
| Lines of Communication Base Construction | 3,675,000 - 50.5% 593,000 - 8.2% | | |

- (b) A total of 7,277,000 man-hours were expended by the Engineer Command.
- (2) <u>Drug Detoxification Centers</u>: Two facilities were constructed by engineer troops, one at Cam Ranh Bay and one at Long Binh.

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CAM RANH BAY - Rehabilitation of facilities formerly used by the 6th Convalescent Hospital was accomplished as a joint effort by Co D/299th Engr Bn, the 497th Engr Co (Fort Const) and PA&E. The project consisted of PA&E rehabilitation of the masshall, two intensive care wards, one latrine, one professional services building, one strip and search building, one luggage storage building, one chapel, two latrine/shower buildings and fourteen barracks. Engineer troops constructed 3000 LF of new chain-link fencing and a latrine, separated two barracks with fencing and modified them for use as maximum security wards. The work began on 14 June 1971, and the facility opened on 21 June 1971. All work was completed in early September.

LONG BINH - The Long Binh Detoxification facility project was accomplished as a joint venture between PA&E and the 92nd Engr Bn (Const). PA&E rehabilitated nine barracks, one messhall, two water towers and one latrine/shower building and installed the utilities. The 92nd Engr Bn erected 1800 LF of chain-link fence; constructed two 1000 SF, air conditioned, intensive-care wards and five new 1000 SF pre-engineered buildings. The project began on 14 June 1971 and was completed and opened for use on 1 July 1971.

(3) VRE Depot: This facility is being constructed at Long Binh Post by the 92nd Engr Bn for use by the Vietnam Regional Exchange System. The depot replaces existing warehouses at several different locations in the Saigon area. The project began on 15 Feb 71 and consists of the following: one 14,000 SF concrete block administrative building; eight pre-engineered 120' by 200' warehouse buildings; a 77,000 SY paved open storage area, two 4,000 SF loading docks, 6,200 LF of chain-link security fencing, one 8,100 SF freezer pad, two guard offices, two latrines, security lighting, fire hydrants and associated utilities.

Since ! July, all steelwork and metal siding for the eight ware-houses has been completed and doors installed. All warehouse floor slabs have been placed. Two of three concrete block firewalls have been completed. Approximately 2,000 IF of 10" pipe for the water distribution system has been installed. Work continued on interior electrical, plumbing, floor tiles and the drop ceiling in the administration building. One-half of the open storage area has been paved. Project is now 86% complete. Estimated date of completion is 1 Dec 71.

(4) Freedom Hill Replacement Station: The Freedom Hill Replacement Station and the Urinalysis Laboratory are being constructed by the 84th Engr Bn in West Da Nang.

Construction of the Urinalysis Laboratory was started on 15 Sep 71 and completed on 15 Oct 71. The scope of work included security fencing, a 2,000 gallon water storage tank and remodeling a structure to convert it to a laboratory.

SUBJECT: Operational Report - Lessons Learned, USARENGRCOMDV, Period Ending 31 October 1971, RCS CSFCR-65 (R3)

Work on the Freedom Hill Replacement Station began on 20 Sep 71. The scope of work included remodeling of four existing buildings for a Processing Center, Collection Facility, Central Issue Facility and a Processing Building, construction of three gate houses, fencing and three wells. The project is complete except for a water well which collapsed during Typhoon Hester and has now been relocated. A new well is being drilled and completion is expected before 7 Nov 71.

(5) LCC Program: During the reporting period, a total of 261 KM of the USARV LOC Program was completed. U.S. troops completed 132 KM, ARVN Engineers completed 42 KM and civilian contractors completed 87 KM. Additionally, both the contractors and troops devoted considerable effort to repairing roads damaged by weather and to upgrading previously constructed routes for turnover to the Director General of Highways (DGOH). Completed roads turned over to DGOH during the period:

| MR | ROUTE | <u>KM</u> | CONSTR | UCTING U | <u>nit`</u> | |
|-----|----------------------------------|-----------|--------|----------|-------------|-------|
| II | QL-11 (Brg 27 - Jct 21B) | 6 | 577th | Engr Bn | (Const) | |
| II | QL-20 (Brg 18 - Brg 15) | 10 | 815th | Engr Bn | (Const) | |
| II | QL-1 (Binh Thanh - Sang Cau) | 22 | Contra | ctor | | |
| II | QL-1 (Song Cau - Tuy An) | 28 | Contra | ctor | | |
| II | Nha Trang Streets | 5 | Contra | ctor | | |
| III | QL-20 (QL-1 - MR 2/3) | 25 | 169th | Engr Bn | (Const) | |
| III | QL-15 (Bear Cat - Vung Tau) | 43 | Contra | ctor | | |
| IA | QL-4 (Thanh Hoa - Soc Trang) | 29 | 69th E | ngr Bn (| Const) | |
| (6 |) USARV LOC Construction Summary | : US | TROOP | CONTR | ARVN | TOTAL |
| | Total KM Programmed | | 1391 | 1149 | 598 | 3138 |
| | Total KH faved | | 1278 | 834 | 96 | 2208 |
| | Total KH Remaining | | 113 | 315 | 502 | 930 |
| | Total KM Deferred/Unassigned | | | | ****** | 547 |

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- (7) Asphaltic Concrete and Crushed Rock Data: During the reporting period, rock and asphaltic products were produced at 16 industrial sites, summarized as follows:
 - (a) Crushed rock used dr ing the period: 1,248,796 CY
 Produced by troops: 1,231,927 CY
 - (b) Asphaltic products used during the period: 540,945 tons

Purchased from contractors: 89,470 tons

Produced by troops: 457,475 tons

Purchased from contractor: 16,869 CY

- (8) Vietnamization: Satisfactory progress is being made in Vietnamization of the LOC Program. The USARV Five Year Support Plan provides for the RVNAF to take over three industrial sites. The first site, Nui Le, was turned over to RVNAF operational control on 1 June. RVNAF Engineers also assumed operational control of the site at Ban Me Thuot and Weigt-Davis. The RVNAF LOC Construction Program is an ambitious one that shows that the RVNAF Engineers are willing to take over an increasingly greater share of the LCC Program. There are now six RVNAF engineer battalions at work on the LCC. The 61st ARVN Engr Bn completed its mission on QL-1 near Hoa Da and has assumed the mission of the 577th Engr Bn to complete a section of QL-20 near Da Lat. The 65th ARVN Engr Bn is continuing construction on QL-14 from Junction 431 to Dao Thong. The 71st ARVN Engr Bn is continuing construction on QL-4 from Soc Trang to Bac Lieu. The 73rd ARVN Engr Bn is preparing to begin construction on LTL-8A from Vinh Long to Long Xuyen. The 52nd ARVN Engr Bn is continuing construction of QL-1 from Gia Ray to the MR 2/3 border. The 202nd ARVN Engr Bn is presently at work on LTL-7B from Junction 14 to Cheo Reo.
- (9) <u>USARV Bridge Program</u>: A total of 25 LOC bridges with a total length of 1038 meters were completed by all construction agencies during the reporting period. The table below summarizes the accomplishments of each agency.

BRIDGES COMPLETED

AGENCY

NUMBER

LENGTH (METERS)

US Troop

7

168

6

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| AGENCY | NUMBER . | LENGTH (METERS) |
|--------------------------|----------|-----------------|
| RVNAF | 1 | 63 |
| Contractor | 13 | 425 |
| Ministry of Public Works | 3 | 345 |
| Australian Forces | 1 | .37 |

Bridges completed by US units were of two basic designs. Bridges 16 and 17 on LTL-9, bridge 16 on QL-1 and bridge 34 on QL-21 are steel with concrete deck, while bridges 24, 26 and 27 on QL-20 are cast-in-place concrete short span bridges. The Royal Australian Engineers completed the final bridge in their program on LTL-23 near Dat Do, a 37 meter steel structure. While construction time for this project was slightly greater than scheduled, the final product is a tribute to the expertise of the Australian Engineers. The 37 meter bridge utilizes wide-flange steel girders and precast deck slabs. RVNAF Engineers completed their first prestressed concrete bridge, bridge 2, on LTL-25, using 40-foot, prestressed concrete T-Beams manufactured at RMK-ERJ's Chau Thoi plant.

d. Facilities Engineering:

- (1) Disposal of Excess Facilities: The transfer of excess facilities to RVNAF is being accomplished in accordance with AR 405-90 and MACV Directive 735-3. During the reporting period there were 64 transfer actions completed. The acquisition value of these transferred faci ities was approximately \$33 million. This brings the total number of transfer actions to RVNAF as of 31 October 1971 to 153, which represents an acquisition value of approximately \$127 million. Disposition of facilities is normally done by transfer action to RVNAF; however, in some cases disposition is by abandonment. The sale of excess facilities to civilian contractors has permitted installation commanders to dispose of unneeded buildings while retaining the real estate. In addition, the government will realize a monetary return for these facilities. Critical items are being controlled and removed before disposition of facilities is made.
- (2) NONTACGEN Program: The Non-Tactical Generator (NONTACGEN) Program was formulated to establish and maintain a DOD insurance level of non-tactical generators and associated distribution equipment. The initial inventory for this program consisted largely of 500kW Schoon-maker and 1500kW GMC generators and an illary equipment which is excess to Vietnamese requirements. As of 31 October 1971 the following equipment has been retrograded to CONUS:

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> 5 , Generator 1500KW Generator **500KW** 17 Switchgear Cubicles

- (3) RVNAF and Vietnamese Civilian OJT Program: Some transfer actions to RVNAF have included Power Plants. The lack of skills required to continue the operation of these power plants required Headquarters, USARV to implement an OJT program for RVNAF personnel and for Vietnamese civilians. This OJT program is conducted by contract at the site of the power plant. The initial phase of the OJT program has been well received and rated satisfactory.
- (4) The continuing program to reduce the number of leased facilities has resulted in considerable cost reduction. Headquarters, USARV, with assistance from MACV, has placed continuing command emphasis on terminating leases. During the period 1 May thru 31 October 1971, 62 leases were terminated with a stal annual rental value of \$1,815,024.46. This has lowered the annual rental value for leased facilities in RVN to \$8,368,182.58 and has decreased to 218 the number of leases in force.

| | LEASES TERMINATED 1 MAY - 31 OCT 71 | AMOUNT |
|------|-------------------------------------|----------------|
| MR 1 | 6 | \$ 38,644.07 |
| MR2 | . 5 | 65,110.81 |
| MR3 | 39 | 153,138.64 |
| MR4. | 12 | 1,558,130.94 |
| | 52 | \$1,815,024.46 |

e. Force Structure Change:

- (1) During the reporting period two force structure actions involving engineer units were approved:
- (a) Inactivation of the 13th and 20th Engineer Brigades and the 937th Engineer Group effective 20 September 1971.
- (b) Inactivation of the 93rd Engineer Battalion (Const) effective 31 July 1971.

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(2) Redeployment:

Ti

(a) The following engineer unit redeployments were conducted as part of the Increment VIII and IX troop withdrawals during the reporting period.

14th Engr Bn (Cbt) 20th Engr Bn (Cbt) 34th Engr Bn (Const) 864th Engr Bn (Const) 153rd Engr Det (FF)

(b) Additionally, the following units were inactivated in Vietnam as a part of the Increment VIII and IX troop reductions during the reporting period.

15th Engr Co (LE)
104th Engr Co (DT)
509th Engr Co (PB)
630th Engr Co (LE)
26th PI Det
38th Engr Det (WD)
156th Engr Det (WD)
306th Engr Det (FT)
510th Engr Det (Util)
579th Engr Det (Ter)
614th Engr Det (PL)

- (c) During the reporting period, other units within the Engineer Command were involved in space reductions which contributed to Keystone Oriole redeployment quotas. The combination of unit redeployments, inactivations and space reductions resulted in a total reduction of 4915 spaces.
- (4) MTOE: Update: Phase II of TAADS MTOE Update was completed on 31 May 1971. A total of 45 MTOE's were updated and submitted to USARV. The update provided personnel and equipment authorization documents for all Engineer Command MTOE units.

f. Mapping and Intelligence:

- (1) The 227th Engr Det (TL) continued to perform the five major functions of its mission:
- (a) Provide staff support and planning in topographic matters to USARV and USARENGRCOMDV.

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- (b) Maintain operational control over the 66th Engr Company (T)(C), the 579th Engr Det (Terrain) and Hydrographic Survey Team #1.
- (c) Coordinate the activities of in-country topographic agencies which include the National Geographic Directorate and the 1st Engineer Topographic Group (ARVN).
- (d) Coordinate in-country topographic activities with out-of-country agencies, United States Army Topographic Command and USARPAC.
- (e) Maintain flood prediction data and issue twice weekly flood forecasting messages for the Mekong Delta during the reporting period.
- (2) The 66th Engineer Company (Topo) has remained fully committed during the period. Survey activities in off-post or insecure areas were curtailed due to the political situation and the monsoon season.
- (3) The 579th Engineer Detachment (Terrain) provided assistance in the location of construction material and used its reference files to answer questions concerning terrain data. The unit was deactivated on 15 October 1971. This was the last terrain detachment in the Republic of Vietnam. Hydrographic Survey Team #1 was reduced to one officer during the month of October. Plans are being finalized for the turnover of hydrographic survey equipment to the unit's Vietnamese counterpart.
- (4) Vietnamese Topographic agencies are primarily engaged in printing all in-country maps used by the Vietnamese Armed Forces. They have developed the capability to provide mapping support for their own units. This has been accomplished with the guidance of the 227th Engr Det (TL) and MACV J/254.
- g. <u>Intelligence</u>: Enemy activities which affected engineer operations included: 35 ambushes, 7 bridges destroyed, 1 bridge damaged, 54 attacks by fire, 7 ground attacks, 246 mine hits and 13 booby trap hits. Engineer casualties for the period were 24 killed in action and 198 wounded in action.
- h. Communications: Due to organizational changes which occurred in April 1971, a revision of the communications concept at HQ USARENGRCCMDV was necessary. Requests were submitted to USARV to establish a dedicated command and control telephone/teletype network which would incorporate the existing tactical communications network extending from group head-quarters down to battalions, and which would offset the loss of communications which occurred when the brigade headquarters were inactivated. Installation of separate voice and teletype circuits from HQ, USARENGRCOMDV to the group headquarters was begun in early May. Satisfactory communications were established in late June 1971.

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SUBJECT: Period Ending 31 October 1971, RCS CSFCR-65 (R3)

i. Medical:

- (1) The chief medical activity for the reporting period centered around drug abuse. The increasingly widespread use of the FRAT urine testing has been the key to drug abuse detection. This testing expanded from all DEROS personnel in the beginning, to unit testing of all personnel in RVN on a periodic basis. Rehabilitation of heroin users was carried out initially in local battalion rehabilitation units but, more recently, in larger programs covering thirteen geographic areas of the country. Follow-up of confirmed users occurs in the unit or, for recidivists, in stateside hospitals, VA hospitals or civilian rehab programs.
- (2) In general the health of the command improved. This was reflected in a daily non-effectiveness rate which dropped from 3.1/1,000/yr in May to 1.9/1,000/yr in September, and in the admission rate which dropped from 421/1,000/yr in May to 227/1,000/yr in September 1971.

j. Religious Activities:

- (1) Religious Services: During the reporting period 3,786 religious services were conducted for the three major faiths (Protestant, Catholic, Jewish), for a total attendance of 59,461. Of the number of services, conducted, 2,242 were conducted by assigned chaplains, 1,383 by chaplains assigned to units other than the Engineer Command according to the area coverage concept and 61 by local civilian clergymen, principally Catholic.
- (2) Counselling: Assigned chaplains counselled 10,915 individuals. The majority of counselling concerned marriage or family problems followed by problems concerning some form of drug abuse.
- (3) Visits: Chaplains of the command made a total of 9,698 visits to hospitals, confinement facilities, troop duty areas and troop barracks.
 - k. Civic Action: None.

1. PIO:

- (1) The Castle Courier, the Engineer Command newspaper, was published on the following dates: 3, 17, 31 May; 14, 28 June; 12, 26 July; 9, 23 August; 6, 20 September; and 4, 18 October. The Kysu, the magazine of the command, also came out during this period. It is a 23-page color publication.
- (2) Over 50 command releases appeared in other publications during the six month period. These print media include: Army Times; Stars & Stripes; Reporter; Observer; Engineer Magazine; 1971 Army Greenbook.

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- m. Safety: During the past six months Army motor vehicle accidents involving personnel of this command have been reduced substantially through adoption of the following operational procedures:
- (1) Through predispatch inspection to insure equipment is mechanically safe at time of dispatch.
- (2) Vehicles are dispatched for official business only and off-base trips have been reduced to essential trips.
- (3) Increased supervision in preparation for and during all convoy operations.
- (4) Vehicle speed limits were reduced and enforced in all areas of operation.
- (5) Drivers with arrest records and/or known habits that detracted from their ability have been reassigned to other than driving duties.
- n. Logistics: The construction program continues to require large quantities of bulk construction materials, cement and asphalt products, as well as steel shapes for US and RVNAF bridge construction. A major factor affecting the construction schedule has been the timely receipt of supplies at the construction sites. In an effort to provide a solution to the materials location problem three teams of NCO's have been deployed throughout RVN under control of the Dir Mat. This search has located and identified over 800 tons of construction materials which is in the process of being moved to both US and RVNAF work sites and to RVNAF Depots where bridge contingency stocks are being replenished and expanded. This material is also meeting all known requirements for ARVN material used to accomplish US assigned bridge construction.
- o. Maintenance: During this reporting period the Maintenance Division, Materiel Directorate, provided assistance to industrial sites and units of the command through assistance visits, newsletters and the PLL School. One of the major accomplishments of this period was the establishment of an NCR-500 system in four construction battalion DSU's reducing their requisitioning time and, in turn, reducing equipment hours lost due to lack of repair parts. Progress was made in training Vietnamese laborers and ARVN engineers working as repair parts clerks; two classes were conducted at the Engineer Logistics School. Due to increased command emphasis and effort the overall deadline rate for the command has decreased from 11.3% to 9.0%.

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2. Lessons Learned: Commanders Observation, Evaluation and Recommendations.

a. Personnel:

- (1) In-Country Mail and Distribution System.
- (a) Observation: The flow of vital written communications through postal or in-country courier channels is slow and unreliable.
- (b) Evaluation: The US Army Engineer Command, Vietnam is a geographically wide spread organization. Effective command and control demands a timely flow of information both up and down the chain of command. The postal system has taken as long as 14 days to deliver correspondence to major subordinate units and the courier system as long as five days.
- (c) Recommendation: The in-country mail and distribution system should be reorganized to provide a rapid means of transmitting written communications.
- (d) Command Action: A "sole user" courier system has been instituted between this headquarters and major subordinate units to insure prompt dispatch and delivery of written communications.
 - (2) Delay in receipt of assignment instruction.
- (a) Observation: During this period this command experienced delay in receipt of CONUS reassignment instructions from USARV.
- (b) Evaluation: The delay was primarily the result of incorrect and late personnel rosters submitted by battalions.
- (c) Recommendations: That USARV post its data bank from morning reports as source documents and automatically obtain reassignment instructions without requiring units to submit recurring typewritten rosters. A system during inprocessing at the replacement battalions could determine E1 E6 CONUS assignment preferences using statements similar to senior NCO preference statements. Subsequent changes could be submitted as a result of individual personnel actions.
- (d) Command Action: Battalion personnel officers are now required to annotate on Forms 66 and 20 the date each individual's name is reported to USARV for reassignment. This procedure is to encourage and improve accurate and timely reporting.

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- b. Intelligence: None.
- c. Operations:
- (1) Portable Pre-Cast Revetments and Bunkers.
- (a) Observation: Portable, pre-cast revetments were instituted by this command in June 1971. Several pre-cast yards produce revetments for use as protection for aircraft and critical facilities throughout Vietnam. This headquarters designed and tested the structures. Tests proved the revetments could withstand the effects of a 122mm rocket detonated at 15 feet.

Recently, a pre-cast concrete bunker has been developed to provide a relocatable perimeter bunker using readily available materials. The bunker design is similar to that of the revetments and can withstand the same effect. The four 8' x 6' walls are identical, with an open window 1½' x 5' in the upper half. The rear wall is rotated so that the window opening serves as a doorway. The 10 foot square floor slab is also precast. The walls are held in place by four inch angle iron bolted to the slab edges. The roof, prefabricated from lumber, is designed only to provide protection from the weather. The bunker can be assembled in four hours with a wrecker or crane.

- (b) Evaluation: Long Binh Post is presently utilizing these bunkers on the defensive perimeter and on 56' observation towers. These bunkers are more economical and require less time to construct than other designs.
- (c) Recommendation: Continue to test above concrete bunkers for usability in the tactical situation.
 - (d) Command Action: None.
 - (2) Sand Asphalt Production.
- (a) Observation: Sand used in production of sand asphalt sticks to the dryer and screens of the asphalt plant.
 - (b) Evaluation: This slows the production of the plant.
- (c) Recommendation: Add 5-10% of 3/8" or 3/4" aggregate to help clean the dryer and screens.
 - (d) Command Action: The recommendation was adopted by the command.

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- (3) The value of the Engineer Command organization.
- (a) Observation: It has become more and more evident as the tactical situation rapidly changes in Vietnam that the "Engineer Command" concept of organization is particularly effective and provides the necessary Engineer flexibility required in this theater of operations. During the reporting period, several varied events have demonstrated the success of this organization. Two brief examples follow:

The major area command in Military Region 1, XXIV Corps, required additional land clearing assets to aid in terrain denial in the Da Nang rocket belt. This headquarters deployed the 60th Engr Co (LC) from MR3 by LST to MR1 for six weeks. A smaller, subordinate engineer headquarters would have had difficulty in all areas of this operation from decision making to the mechanics of the water move. In addition to long range planning of tactical engineer support, the command concept proved to be valuable following the destruction caused by Typhoon Hester in Military Region 1. With short lead time, available electrician assets countrywide were assembled and redeployed in MR1 to assist in emergency repair of electrical failure in hospitals and other essential facilities. Prompt action lessened the impact of the disaster.

- (b) Evaluation: An Engineer Command, with theater-wide capabilities, has proved to be an effective organization in Vietnam.
 - (c) Recommendation: None.
 - (d) Command Action: None.
 - d. Organization: None.
 - e. Training: None.
 - f. Logistics: None.
 - g. Communications: None.
 - h. Materiel:
 - (1) Dynalectron Repair Parts Requisitioning Procedures:
- (a) Observation: The command had been experiencing a high deadline rate for MAC-LOC equipment due, in part, to high ASL zero balance at Dynalectron supply activity.
- (b) Evaluation: Due to the theater peculiar MCA-LOC equipment supported by Dynalectron, the majority of repair parts are requistioned direct from CONUS.

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The Dynalectron supply procedures were found to be slow and cumbersome and added significantly to the supply time for parts coming into country. In addition, repair parts were being shipped from CONUS thru the LBN depot to Dynalectron, thus increasing loss and pilferage.

- (c) Recommendation: That coordination be made with USAEMECOM to have repair parts shipped directly to Dynalectron without going through LBN depot.
- (d) Command Action: The Engineer Command staff performed the required study and discovered a more expeditious means of requisitioning and processing repair parts, thereby cutting supply time by approximately 30 days.
 - (2) Training of Vietnamese in PLL Procedures.
- (a) Observation: Local National's (LN's) working within repair parts activities of the command and Vietnamese Army personnel working with US units have no formal training in PLL procedures. An experimental class, using two previously trained interpreters from Central Training Institute (CTI) was conducted 20 -30 - September for fourteen individuals.
 - (b) Evaluation: All students improved their knowledge on the subject.
- (c) Recommendation: That USARV or MACV establish a logistics training school for both ARVN's and civilians in order to head off probable difficulties in this area.
- (d) Command Action: Another class has been scheduled for 6 16 December 1971. MACV has been requested to furnish as many students as possible and to insure all ARVN units (infantry, armor, etc.) take advantage of the training opportunity.
 - i. Other:
 - (1) High Voltage Power Contract, Facilities Engineering.
- (a) Observation: The PA&E High Voltage Power Contract for FY72 (DAJB11-71-C-0318) was a competitive negotiated Firm Fixed Price Contract. Seven companies submitted sealed bids and of these the government found five responsive. Negotiations began with these five in an attempt to seek a minimum dollar figure.
- (b) Evaluation: The successful contractor revised overtime rates and salaries of personnel in an attempt to reduce costs consistent with the low bid. The action of the contractor caused extreme personnel turbulence which resulted in poor performance and finally in partial contract default. The consistency and quality of contractor performance are essential elements.in reducing risk of US and FWMAF in a combat situation.
 - (c) Recommendation: Competitive bids for contracts awarded in a com-

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bat environment should be carefully considered and if any question of reliability arises, sole source procurement procedures must be followed.

(d) Command Action: Continued surveillance of all service contracts and immediate request from higher authority for deviation from ASPER when dictated by events.

R. P. YOUNG
Major General, USA

Commanding

AVHDO-DO (24 Nov 71) 1st Ind

SUBJECT: Operational Report - Lessons Learned, USARENGRCOMDV Period Ending 31 October 1971, RCS CSFOR-65 (R3).

Headquarters, United States Army Vietnam, APO San Francisco 96375

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD, APO 96558

HQ, DA (DAFD), Washington, D. C. 20310

1. This Headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 October 1971 from Headquarters, USARENGRCOMDV and concurs.

2. Additional comments follow:

- a. Reference item concerning "Personnel," paragraph 2a(1), page 13. The recommendation made by the Engineer Command is under study by a MACV Transportation Working Group Committee, chaired by the MACV Staff Postal Officer, and directed to furnish recommended solutions to the problems encountered. The command action taken is of course effective but most likely an ineffecient use of air frame and blade hours, whether fixed or rotary. The aforementioned committee has come to suspect that any solution that achieves maximum effectiveness will probably be less than totally efficient. If a dedicated-to-routine airlift trunk line is established, it should fly with one letter or one ton of letters, parcels and command pouches, other cargo and passengers, everyday at the appointed time. Then and only then will the current routine delays be explainable exceptions.
- b. Reference item concerning "Delay in receipt of assignment instruction," paragraph 2a(2), page 13. This headquarters makes every effort to insure that personnel are returned from Vietnam with assignment instructions prior to their departure. Our goal is 45 60 days prior to DEROS and we make every effort to do so. As can be readily understood, the personnel turbulence caused by unit drawdowns and redeployments have caused us to fall short of our goal in the past few months. Accurate and timely reporting by all concerned will assist in enabling all individuals to receive their assignments prior to departure from RVN.
- c. Reference item concerning "Training of Vietnamese in PLL Procedures," paragraph 2h(2), page 16. Concur with action taken. A need for training of not only Vietnamese but US is required, however, drawdown of US forces will not justify a full time PLL school.

FOR THE COMMANDER:

CPT AGC

ASSISTANT ADJUTANT GENERAL

Cy furn: USARENGRCOMDV

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GPOP-FD (24 Nov 71) 2d Ind SUBJECT: Operational Report-Lessons Learned, HQ USARENGRCOMDV Period Ending 31 October 1971, RCS CSFOR-65 (R3)

HQ, US Army, Pacific, APO San Francisco 96558

6 APR 1972

TO: HQDA (DAFD-ZA) WASH DC 20310

This headquarters concurs with the subject ORLL as indorsed with the following comments:

- Reference para 2a, page 13: Aviation assets are available in RVN to solve the problem. The CAC has 26 U-21 aircraft authorized, of wh.ch approximately half are committed daily. In view of daily commitments, a dedicated aircraft for courier service twice a day from Long Than Airfield to northern airfields and return would not be an unrealistic requirement for the CAC. This aircraft should be for all units' dispatch and delivery of written communications/mail and scheduled only into main airfields with instrument approach facilities. Units utilizing this courier service should be required to be at the airfield on time for all pickup and drop-off of applicable material. This service would provide better utilization of aviation assets and would negate units' waiting to batch mail until there is sufficient volume to justify aircraft commitment or for weather that can be flown by visual flight rules.
- b. Reference para 2a(2), page 13: The problem of erroneous AOR reporting is magnified by the drawdown and attendant curtailment programs. The strength level in Vietnam is controlled by a day-by-day curtailment program. The problem, very simply, cannot be resolved until DA operates on a system responsive to rapidly changed DEROS. In short, DA is planning on the individual returning to CONUS on a specified DEROS and that DEROS changes from 45 to 90 days shortly prior to the EM's departure. The DA AOR program must be changed to accommodate the Vietnam system for reducing strength by curtailment of tours before more progress on this problem can be expected.

FOR THE COMMANDER IN CHIEF:

Mh. L. Mah K. L. MAH HT, AGO Asst AG

Cy furn: CG USARV

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